

The Stryker *and* Land Management

Story By Neal Snyder



Just as the introduction of the Stryker is changing the way the Army looks at land warfare, the vehicle's arrival has brought changes in the ways federal training lands are managed.

THE Stryker wheeled fighting vehicle is a symbol of Army Transformation, and is designed to lead to a radically different Army than the one that exists today. And the people who maintain the lands on which the first Stryker brigades train at Yakima Training Center, Wash., are changing their methods to protect the land.

Yakima's evolving "adaptive management" plan for guarding

cultural and natural resources relies on the use of up-to-the-minute technology to deal with the impact of training the transformation units, said Paul Martin, a facilitator and coordinator of National Environmental Policy Act compliance with the Department of the Army and the Stryker Brigade Combat Team sites.

To best manage a particular training area, managers must know the condition of that area before units begin training there, and assess its likelihood to withstand intensive

maneuvers like training. Upon completion of the training, they must measure as accurately as possible what effects that training had on the land. They can then calculate the possible effects of follow-on training. Poorly managed land can quickly result in cases of non-compliance, Martin said.

Previously, managers attempted to predict, based on experience and modeling, what kind of impact certain types of training would have on particular tracts of land and then plan accordingly. "But the proof and

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Stryker crews are learning to fight in new and innovative ways, and land managers are developing new methods that take the vehicle's mobility into consideration.

understanding of actual impacts often lagged far behind," Martin said.

"There hasn't been what you would call normal Stryker training yet," added Yakima's executive officer, Jim Reddick.

"The biggest difference in training has been the open area required for a small element, because an infantry unit with Strykers requires up to 10 times as much training space as it did before," Reddick said.

In addition, the vehicle is more mobile than a lot of people thought it would be. "It gets into places that haven't been used for vehicle training to any great extent," Reddick said.

COL Michael Rounds, commander of the 3rd Bde., 2nd Inf. Regt., which operates the vehicles, said the Stryker adds a lot more speed and range to operations. A Stryker can go places Humvees or armored personnel carriers like the Bradley cannot, he said.

Soldiers maneuvering with the Strykers are learning to fight in ways as new as the vehicles themselves.

"The 1st and 3rd brigades are on the leading edge of Army training," said Paul Nissen, YTC's natural-resources manager. "They're writing doctrine as they go."

At the same time, Yakima is

effectively writing land-management doctrine for some of the earliest Stryker training. "The information we're gathering will be important to other installations with Stryker brigades," he added.

To gather the data adaptive management requires, the Yakima managers have been conducting two different studies.

When the brigades first received light armored vehicles in anticipation of the Stryker, Nissen and his crew drove the vehicles over sample plots of ground. They kept careful track of the plots' "recovery" and created a model to calculate future impact.

Second, they designed a passive,

remote Global Positioning System device to monitor Stryker units as they train. As Strykers return from the field, Yakima officials remove the suitcase-sized devices and download their data.

"We then have a 'snail-trail' of information on where the units have been," Nissen said. "For that week or 10 days we can gauge actual unit movement time versus idle time. We can determine how far the vehicles traveled off improved roads. We can look at the steepness of the slopes they drove on and see where they conducted repetitive activities."

The GPS system was developed in 2001, and its first use with the Stryker took place in the late fall of 2002.

Margaret Pounds, YTC's wildlife program manager, said Stryker training doctrine won't stabilize soon, since the brigades are still in an experimental stage.

While soldier training changed with the advent of the Stryker, the rules environmental managers work under didn't. Trainers must take into account the environmental restrictions already in place before the brigades were announced.

"We have to meet the requirements of the statutes," Nissen said. "What's going to change is how we interact with and manage our resources."

"Under adaptive management, you lay out a framework of where you want to go," Nissen said. "You take



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that framework and apply it to your management strategies. You adjust land-use patterns and repair and maintenance activities, and specify how to adjust to thresholds that might be coming down the road.”

Adaptive management doesn’t just support day-to-day training. The information will also be used as Fort Lewis and the YTC develop their environmental impact statements for Stryker training.

The Stryker obstacle course is an example of where the environmental staff used its data to work with the training community. “We worked with them to harden the places most likely to fall into disrepair quickly,” Nissen said. “The data successfully predicted which unimproved areas needed repair work.”

“When they started realizing the capabilities of some of the tools we were working with, such as the Geographic Information System, they started working with us to obtain information to help them train more effectively,” Rounds said.

Nissen wants the GIS program to eventually make information available “directly to the customer” via the internet. “We want to try a Web-based GIS tool to let them build custom maps for their own training,” he added.

On any day, about 2,000 soldiers might be training at YTC. Watching some of his 600-odd soldiers take an evening break and prepare for night fire, LTC Len McWherter, 1st Bn. commander, said he hasn’t noticed any differences in the way his soldiers deal with environmental issues now that they are using Strykers.

Soldiers are taking the usual environmental precautions — maintaining spill kits, refueling in places hardened for that purpose and activating flameless ration heaters, among other things. “There are no more restrictions on us than for any other unit that trains here,” McWherter added. □